

COMMD9 Protein, Human, Recombinant (His)

General Information

Synonyms:	HSPC166;COMM domain containing 9
Protein Construction:	A DNA sequence encoding the human COMMD9 (Q9P000-1) (Met1-Lys198) was expressed with a polyhistidine tag at the N-terminus. Predicted N terminal: His
Species:	Human
Expression Host:	E. coli
Accession:	Q9P000-1
Molecular Weight:	23.7 kDa (predicted); 25 kDa (reducing conditions)

QC Testing

Biological Activity:	Activity testing is in progress. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 85 % as determined by SDS-PAGE
Endotoxin:	Please contact us for more information.
Formulation:	Lyophilized from a solution filtered through a 0.22 µm filter, containing PBS, 10% Glycerol, pH 8.0. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:
A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

COMMD9 is a COMM domain-containing or COMMD protein. COMMD family is comprised of ten members which are widely conserved throughout evolution and share certain functional properties. They represent a recently discovered set of evolutionarily conserved factors characterized by the presence of a defining carboxy-terminal motif. COMMD protein functions in the control of the transcription factor NFkappaB. NFkappaB plays a critical role in a number of homeostatic processes in multicellular organisms, including the regulation of immunity and cell

survival. COMMD proteins inhibit NFkappaB mediated gene expression, and recent mechanistic studies have revealed that COMMD1 controls the ubiquitination of NFkappaB subunits, an event linked to transcriptional termination. COMMD1 binds to a multimeric ubiquitin ligase containing Elongins B/C, Cul2 and SOCS1 (ECS(SOCS1)). In this complex, COMMD1 facilitates the binding of NFkappaB subunits to the ligase, thereby promoting their ubiquitination and degradation. Additional insights gained from these studies indicate that COMMD proteins likely play a broader role in cellular homeostasis through their participation in the ubiquitination pathway.

Reference

Ota T.,et al.,(2004), Complete sequencing and characterization of 21,243 full-length human cDNAs. Nat. Genet. 36: 40-45.

Bechtel S.,et al., (2007), The full-ORF clone resource of the German cDNA consortium.BMC Genomics 8:399-399.

Yu X., Harden K.,et al.,(2009), The surface protein TIGIT suppresses T cell activation by promoting the generation of mature immunoregulatory dendritic cells. Nat. Immunol. 10:48-57.

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